

Weekly Report

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11.12.2012 - 11.18.2012

Intro

This week I spent most of my time on going over convex analysis, preparing for the visual analytics framework presentation and InfoVis course materials. The research proposal for active learning project on next seminar was going on.

Research

- **Narrowing down my ideas (cont.2)** After previous survey on active learning and knowledge transference, I set my focus on user-guided knowledge transference, which might be an extended framework for inter-active learning presented this year. A brief content is listed below:
 1. **Introduction:** Learning to adapt previous knowledge in a new setting is a common challenge. In the research field of machine learning and data mining, cross-domain-learning and transfer-learning based framework has been developed for applying labeled instances in other domain or distribution on a new target environment. However, there still exists many issues on "how to transfer" and "what to transfer". In this project, we present an interactive user-guided approach for transferring existed mining results or knowledges into a new domain. For supporting our approach, we will build a text classification application for users to extract previous information and make insight adaptation.
 2. **Contribution:**
 - (a) Introduce knowledge transference into visual analytics field;
 - (b) provide a user-guided approach for transfer learning tasks.
 3. **Expected experiment:** Text classification is one of the most common task in knowledge transference in data mining. In the first step this experiment scenario is preferred. We can design an experiment for using classifiers and labeled data in one topic to help classifying documents in other topics or other domain.
 4. **Unsolved issues:**
 - (a) Implementation of some classification algorithms;
 - (b) visual design and analysis process.

I will finish my proposal and future action plan next week and make a presentation for Wednesday's idea evaluation.

Practice & Skills

None.

Miscellaneous

None.

Plan for Next Week

- Finish my research proposal for idea evaluation meeting on Nov.21;
- go on preparing for convex analysis final exam and InfoVis courseware no.3.

References

None.